

OCTOBER 2016

ZOOM

A MAGAZINE FROM KASTAS SEALING TECHNOLOGIES



PU8502

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THERMOPLASTIC
POLYURETHANE**

Countdown to
New Facility
Opening



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Kastas Sealing Technologies A.S.
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Dear Partners,

2016 marks Kastas' 35th year of operations

For 35 years, being a reliable solution partner has been the main driver behind all Kastas' efforts and initiatives. At every stage of our development, we always aimed to increase our product and service quality by investing in human resources, new production technologies, R&D and customer experience. While technology and trends change rapidly, we remain true to our principles, while also being responsive to change. Our ability to recognize and adapt to new trends has ensured our continued success.

As Kastas, we are approaching the end of 2016 with a positive outlook for our future. For us, the main highlight of 2016 was the construction of our new production facility. The new plant, which we plan to open in October 2016, is a state-of-the-art production facility incorporating advanced building and IT infrastructure, while providing a spacious and pleasant office atmosphere.

At Kastas, we see meeting customer demands as our main priority. We are planning to reach our 2020 goals with the same determination. With this in mind, we are expanding our R&D activities to include new products and sectors, and will particularly focus on our organizational development, investment plans, and strategies.

Within the Fall issue of our magazine, we are pleased to share news on many new products and services, along with new investments and events that have marked a very successful 2016.

Yours Sincerely

Haydar Atilgan
Chairman of the Board / General Manager



Countdown to New Facility opening

The new plant, which has been the most significant investment in the company's history, once operational, will serve as the base for meeting the future targets of our organization. The production site is designed to be one of the most modern sealing elements production facilities globally. The new plant will allow Kastas to double its production capacity, not only due to the availability of additional machinery, but also through increased automation and new, more efficient, production processes.

Moreover, the headquarters building is designed to provide high level of comfort for the employees, thus increasing their work satisfaction and productivity. Provision of advanced IT infrastructure, modern offices, recreational areas and friendly and comfortable working atmosphere are the key targets for the new building.

Completion of the new Kastas headquarters and production facility construction is planned for October 2016.



Kastas was at 7th LEAN SUMMIT TURKEY

Kastas Sealing Technologies Quality Engineer Ms.Özge Tural made a presentation titled "TEMOTOKA" at 7th LEAN SUMMIT TURKEY 2015, held December 7-8 under the slogan of "New Horizons in Lean Thinking". Since 2003, the Summit has been organized by the Lean Institute every two years. The Summit, where companies share their experiences and best practices, this year took place with the participation of 650 visitors and over 140 companies.



Sharing of experiences and activities in the field of lean manufacturing by the company itself creates different perspectives. For that reason, it is necessary to underline that the Summit is a motivational meeting point of all attending companies, as well as listeners and speakers.

the presentation titled "TEMOTOKA" by Quality Engineer Özge Tural.

Lean manufacturing is a compass that directs us to a positive growth strategy by allowing us to use our resources efficiently.

Ms. Tural considers the summit was a successful organization that is hosting

several workshops, parallel forums on various industrial applications and speeches of experts on their fields of work. She would be glad to share their new projects in different applications and attend with new issues at the next Summit, which will be held in 2017. Meanwhile, they conveyed that they plan to participate the event to see and experience the Toyota production system, known as the place of birth of lean manufacturing, on site, organized by the Lean Institute once a year.

At the Summit, participants were informed about both "TEMOTOKA", which is one of the techniques of lean manufacturing, and lean manufacturing practices at Kastasis in

Kastas Europe increases O-Ring availability



Kastas Europe recently increased stock availability of O-rings with a wider dimension and material range. With a recent investment for O-rings, Kastasis Europe now holds a large stock of O-rings up to 700mm in NBR70, NBR90 and FKM ex-stock and much more, with short delivery times.

Being a leading producer of sealing elements for fluid power, we seek to continuously increase our market share in static sealing solutions with the production of high quality molded parts in elastomers and thermoplastics for various industries. Moreover, with a large stock of O-rings in central warehouses in Izmir and Germany, we are serving fluid power applications as well as other applications.



Energy Saving Sealing Solutions at Cutting Edge Technology Forum



Kastas Sealing Technologies R&D Manager Mr. Ozan Devlen made a presentation, "Energy Saving Sealing Solutions for a Better World," at the Cutting Edge Technology Forum within the scope of the PTC ASIA 2015 Exhibition. He touched on the rising trend of high-efficiency, environmentally-friendly energy sources and significant savings resulting from the usage of proper sealing elements within the system.



Ozan Devlen
R&D Manager

"Friction force, leakage and heat generation are the causes of energy loss in fluid power systems. The sealing system plays an important role in Fluid Power efficiency in terms of friction, emissions and heat generations. Energy saving sealing solutions

are readily available in the market and offer great benefits for such demands. At this point Kastas has developed a modern rod seal, the FR200, for system requirements. Kastas' brand new product, FR200 Friction Reduced Rod Seal, offers lower friction and reliable pressure relief ability without compromising quality or safety with low leakage. It

also offers long service life and has recently joined our product portfolio as a result of a long-term R&D investment. Fluid power ensures unparalleled torque, power and bandwidth for the same weight or volume. However, fluid power systems are still largely inefficient so there is more room for improvement," he says.

Potable Water, Developing a new Standard

Following the success of an ESA (European Sealing Association) internal project on test procedures for packings for rotary applications being adopted as an agreed European standard, EN 16752, the Executive Committee decided to coordinate a project as the ESA on Potable Water, which was declared in the November ESA Newsletter.

Kastas Sealing Technologies R&D Manager Mr. Ozan Devlen, who is a member of the board of directors, says, "I am aware that members in several divisions are becoming increasingly frustrated by the increasing costs of testing and approvals such as WRAS approval in the UK, and the shrinking length of time such an approval is valid for."

Details of "the progress with European testing and approval of drinking water construction products" can be accessed easily from the ESA official website by clicking News/November 2015. This suggests that there is a project under the guidance of DG Enterprises called "European Acceptance Scheme (EAS)", which is hoped to replace all the national regulatory schemes to ensure all products used with drinking water comply with the requirements of Article 10 (Quality assurance of treatment, equipment and materials) of the Drinking Water Directive (DWD).

There now appears to be a new group - the Expert Group - Construction Products Drinking Water (EG-CPDW) looking at a similar project.

So ESA is looking to see if we can use our technical expertise to help facilitate a standard that combines the best of all the national standards, and that could be considered for adoption as a European standard. As they say, if you do not try, you will never succeed!

Mr. Devlen has started an information gathering exercise to try to determine all the various local standards that are commonly used in Europe. He says "We intend to review the details and hopefully suggest a comprehensive standard that could be adopted by all Europe and eliminate the existing competing national standards." While the project has just started, some details have been made known on existing national standards that are commonly used in Europe:

France: France insists on ACS (Attestation de Conformité Sanitaire) standard as being the only acceptable approval.

Germany: The German agency for gas and water, DVGW (Deutsche Vereinigung des Gas und Wasserfaches) insists on KTW (Kunststoffe

und Trinkwasser) standard as being the only acceptable approval.

United Kingdom: UK specifies WRAS (Water Regulations Advisory Scheme). This scheme states it requires testing to be carried out in line with BS 6920.2000, using the procedures of ISO 17025.

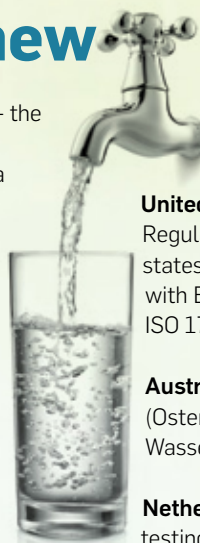
Austria: Austria requires testing to OVGW (Osterreichische Vereinigung für das Gas und Wasserfach) standard.

Netherlands: Netherlands specifies that testing must take place at a KIWA test center, where tests follow the procedure set out in ISO 17025. These facilities are able to test to all European standards.

Switzerland: The Swiss specify that test must be to SVGW (Schweizerische Verein des Gas und Wasserfaches) standard.

And just for the sake of completeness, **United States of America:** USA specifies the NSF (National Science Foundation)/ ANSI 61 standard.

An approval test can cost anywhere between 1,200 Euros and 7,000 Euros, dependent on the standard and which approval test house is used.





FR200 Friction Reduced Rod Seal details, updates, essentials, analysis, targetted industries and dimensions will be found at FR200 microsite.

To reach, please scan the qr code or click on the link
www.kastas.com/microsite/fr200



SmartSeal®
Mobile App is on air

The SmartSeal® app lets you easily find product information, request quotes and explore material ranges. You can also reach SmartSeal® service locations and contact details are provided for your questions and requests.

Low Friction, Low Leakage, Pressure Relief

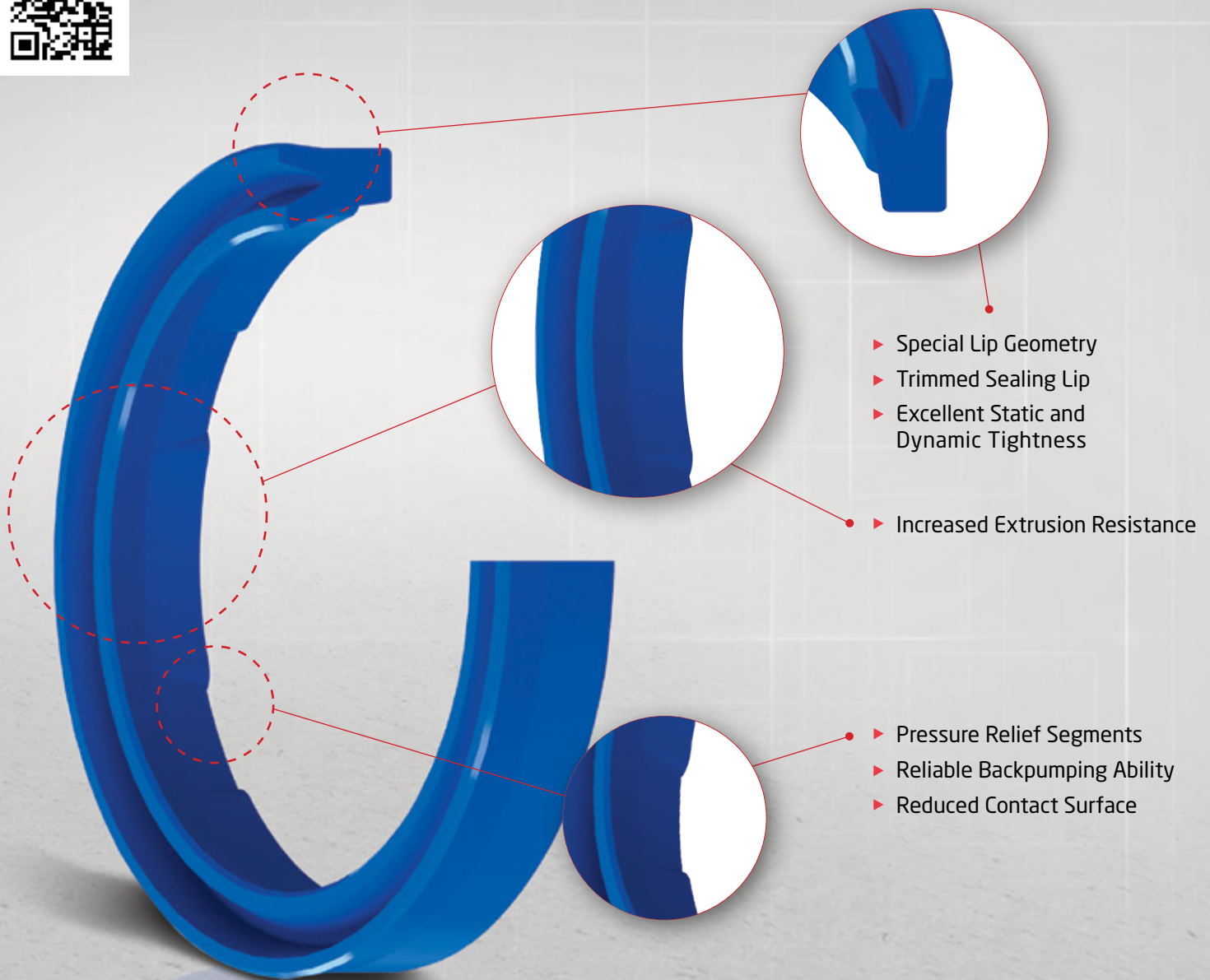
FR200 Friction Reduced Rod Seal

FR200, product of years of research, design, development, testing, assures all requirements that are expected from a modern rod seal.









FR200 offers lower friction and a reliable pressure relief ability compared to other U-Cups without compromising from low leakage and long service life.



Find more information at FR200 microsite
www.kastas.com/microsite/fr200



UPCOMING EVENTS

	Event	Date	Place
	PTC ASIA	November 1 - 4, 2016	China, Shanghai
	IFPE	March 7 - 11, 2017	Las Vegas, NV
	WIN EURASIA	March 16 - 19, 2017	Turkey, İstanbul
	MECSPE	March 23 - 25, 2017	Italy, Parma
	HANNOVER MESSE	April 24 - 28, 2017	Germany, Hannover
	KONMAK	April 27 - 30, 2017	Turkey, Konya
	KOMATEK	May 3 - 7, 2017	Turkey, Ankara
	CTT MOSCOW	May 30 - June 3, 2017	Russia, Moscow





PU8502

**New Generation
Thermoplastic
Polyurethane**

Within the scope of the Kastas R&D Department Material Development Division, raw material and product development activities that are two of the most important factors that affect the performance of the seal in line, with a design that makes a difference in different applications. With new PU8502 material, Kastas now offers a combination of longer service life and higher performance in pneumatic cylinders, while increasing the usage rate of thermoplastic polyurethane in pneumatic systems due to its increased compression set property.

Polyurethane material is commonly used in fluid power systems due to its advantages, such as wear resistance, tensile strength and tear resistance, which enables durable solutions in both hydraulic and pneumatic systems.

Standard polyurethane materials have superior mechanical properties compared with elastomers. However, they also have disadvantages, such as low resistance to different environmental conditions, in particular to fireproof hydraulic fluids and air, and high compression set value at low hardness.

One of the most important indicators affecting the performance of the sealing element in pneumatic systems is the Compression Set property. Low compression set value is critical in terms of performance and service life of the seal.

Kastas developed a new polyurethane material, PU8502, for increasing expectations for high performance for the pneumatic systems and applications requiring material usage with low hardness. PU8502 provides better compression set values and resistance

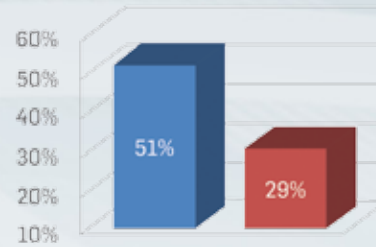
High Performance

Resistance to Abrasion

Long Service Life

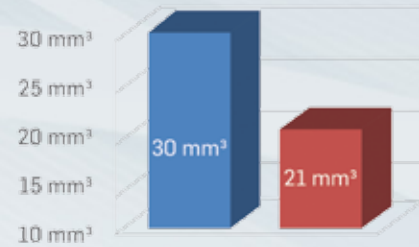


Compression Set



ISO 815 24 Saat @ 100 °C

Abrasion Loss



DIN 53 516 Abrasion Loss

Standart PU PU8502

Life Test Performance

For testing PU8502 at Kastas Test Center, a product named K59 Pneumatic Piston Seal was produced. K59 Piston Seal is made of special PU8502 material and provided excellent leakage protection and performance through a 30,000,000 cycle test. According to results of the test under

90 cycle/min speed (approximately 0.6 m/s) and over 8 months, it can maintain continuous movement even under 0.13 bars. Examination of seals shows that all abrasion is at acceptable limits and seals continue to function smoothly.

to external environmental conditions compared to standard polyurethane materials, without compromising its other superior mechanical properties.

Standard polyurethane materials used in pneumatic systems in the market show high compression set values. PU8502, specially developed for pneumatic applications, has

considerable advantages compared to standard PU materials with low compression set value. It also provides long service life because of its abrasion loss property and shows high performance at high temperatures because of its high Vicat* Softening value (153oC).

*** Vicat Softening Value: Vicat softening temperature value**

K50 and K59 Pneumatic Seals produced by PU8502

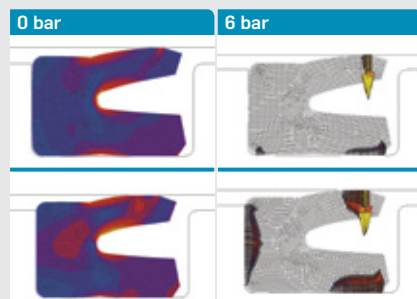


K50 Pneumatic Piston Seal

K50 is a single acting pneumatic piston seal designed to have an asymmetrical profile with a shorter and thinner dynamic lip. Additional advantages of K50 include:

- ▶ Secure seating due to the longer and thicker static sealing lip
- ▶ Low friction and good sealing performance due to the seal geometry

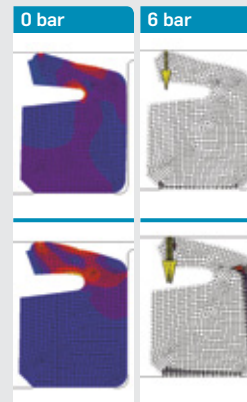
FEA simulation image of K50 under 6 bar pressure



K59 Pneumatic Piston Seal

K59 ensures easy installation and excellent sealing performance in a wide range of pneumatic applications. Additional advantages of K59 include:

- ▶ Low friction and good sealing performance due to the seal geometry
- ▶ High sealing effect with cushioning applications



FEA simulation image of K59 under 6 bar pressure



"PU8502 has high hydrolysis resistance, low compression set value and long service life compared to standard polyurethanes."

Nihat Öziri
Technical Manager



Sealing Solutions for Hydraulic Breakers

Contaminated work environments, constant high speed parameters and their complex structures make Hydraulic Breakers a very challenging application in the construction field. Kastas produces the most reliable sealing solutions for Hydraulic Breakers, Drillers and Crushers by using the most advanced technology to meet application demands.

Diaphragms

A hydraulic system requires a diaphragm to ensure the continuity of pressure within the accumulator for smooth operation. Therefore,

the operating performance is directly proportional with the diaphragm work in accordance with the system used in the accumulator. The diaphragms made out of PU8502 offer long service life in diverse operating conditions and pressures and even at high sliding speed. Polyurethane material offers product advantages such as high coefficient of elongation, high durability and flexibility. These advantages do not exist in diaphragms made of elastomeric material. Unlike standard polyurethane, PU8502 has the ability to provide quick response to shock pressure changes needed on the accumulator diaphragms by offering better hydrolysis resistance, compression set and long service life. Therefore, Kastas offers products distinct from its competitors through PU8502 polyurethane material.



TR012015 Pneumatic Sealing Elements Test Rig

Kastas Sealing Technologies contains the Pneumatic Sealing Element Test Rig (TR012015) with latest technology for performing tests such as internal leakage test, minimum continuous movement pressure test, life test, guide ring/bushing life test. As a part of its work on the Technical Committee of ISO, Kastan has developed the test rig in accordance with the ISO 19973-3 standards. Its contributions to the formation of international standards, the pneumatic test rigs developed in-house, are redesigned in accordance with ISO standards.



Pneumatic Sealing Element Test Types

Inner Leakage Test

6 bar pressure is locked between the air port of the cylinder and pressure transmitter. Decrease of pressure depends on the time, which is monitored.

Minimum Continuous Movement Pressure Test

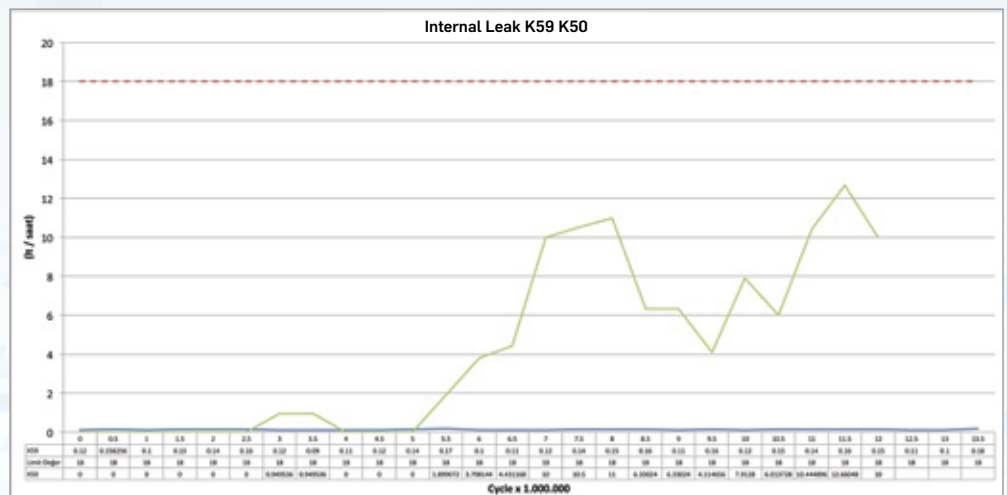
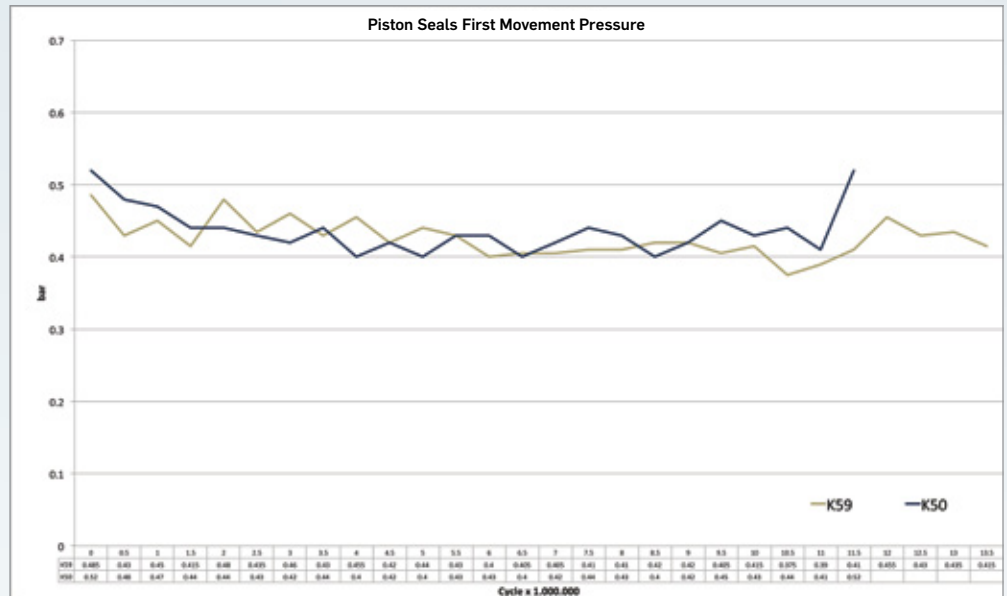
The pressure in the hose connected to the cylinder's air port is gradually increased. The pressure that the cylinder moves is determined as the minimum continuous movement pressure.

Life Test

Various types of pneumatic cylinders are installed to the test rig. When the internal leakage test value exceeds the limit set by ISO19973, testing is finished. Operating life of the seals is determined according to these values.

Guide Ring / Bushing Life Test

Guide rings and bushings on the cushioning cylinders are periodically measured. Subject to wear over the specified limit, samples are changed, allowing the service life of the samples to be determined.



3 New SmartSeal® Materials

JPU9409

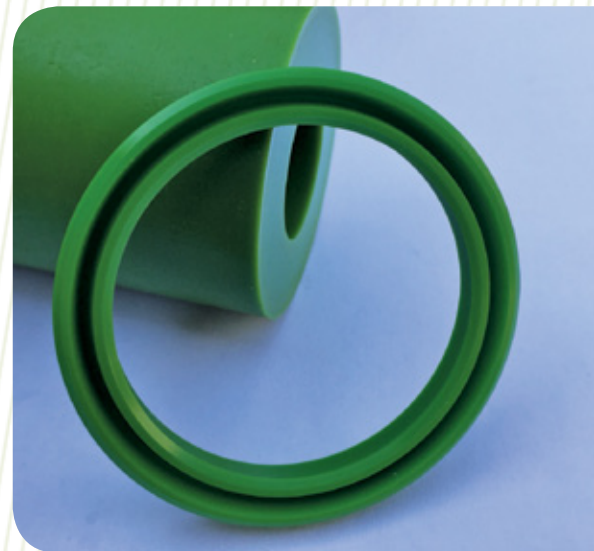
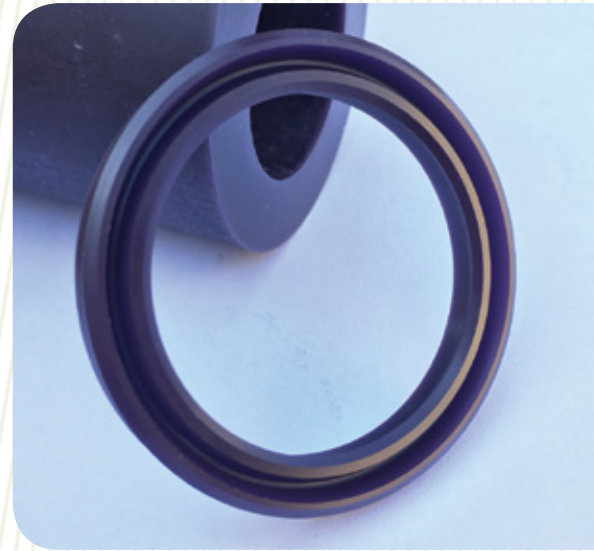
JPU9408

JPU8801

While providing the fastest solution in many critical applications, SmartSeal® stands out among its rivals based on its quality and material range and has recently extended the range with 3 new materials.

SmartSeal® provides an advantage for standard applications with its product processing capacity of up to 1500 mm diameter and a wide stock of polyurethane, elastomer and other engineering plastics. SmartSeal® serves various critical sectors requiring resistance to diverse chemicals as well as high temperatures. With 3 new materials included in the material range near the end of 2015, we began to offer higher performance products to our customers, especially in the food industry, metalworking and pneumatic applications.

"We continue to work on developing raw materials that meet customer needs that have not yet been voiced," said Mr. Ozan Devlen, R&D Manager for the raw material development division.



JPU9409

High Temperature Resistant PU

JPU9409 is recommended for applications where temperature and mechanical stress of the material reach the limits of standard Polyurethanes. It provides longer life and superior performance at high temperatures, reducing the total life cycle cost due to its wider maintenance intervals.

- ▶ **Working Temp. Range:** -30 °C to 135 °C
- ▶ **Color:** Orange
- ▶ Excellent physical stability at higher temperatures
- ▶ Outstanding thermal ageing resistance



JPU9408

Chemical Resistant PU

FDA approved JPU9408 is resistant to the commonly used CIP fluids and shows low swelling in non-polar fluids like mineral oils or fatty foodstuffs.

- ▶ **Working Temp. Range:** -30 °C to 115 °C
- ▶ **Color:** Violet
- ▶ Chemically resistant to commonly used CIP fluids
- ▶ Low swelling effects in non-polar fluids like mineral oils or fatty foodstuffs
- ▶ FDA 21 CFR 177, 1680



JPU8801

Low Hardness PU

JPU8801 is very flexible and easier to install in tight housing situations and is also used when a "softer" material is needed for higher compression (preload) of the sealing material.

- ▶ **Working Temp. Range:** -30 °C to 115 °C
- ▶ **Color:** Light Green
- ▶ Easy to install in small grooves
- ▶ Excellent performance in dry air and pneumatic applications



The eminent Swedish Nobel Prize-winning scientist Svante Arrhenius (1869 – 1927) developed mathematical formulae to relate the rate of chemical reactions to temperature. This approach has proved to be extremely accurate and has led to its wide adoption as the basis of techniques for predicting the useful lifetime of many types of artifacts which can be degraded by their operating environment, including elastomeric seals.

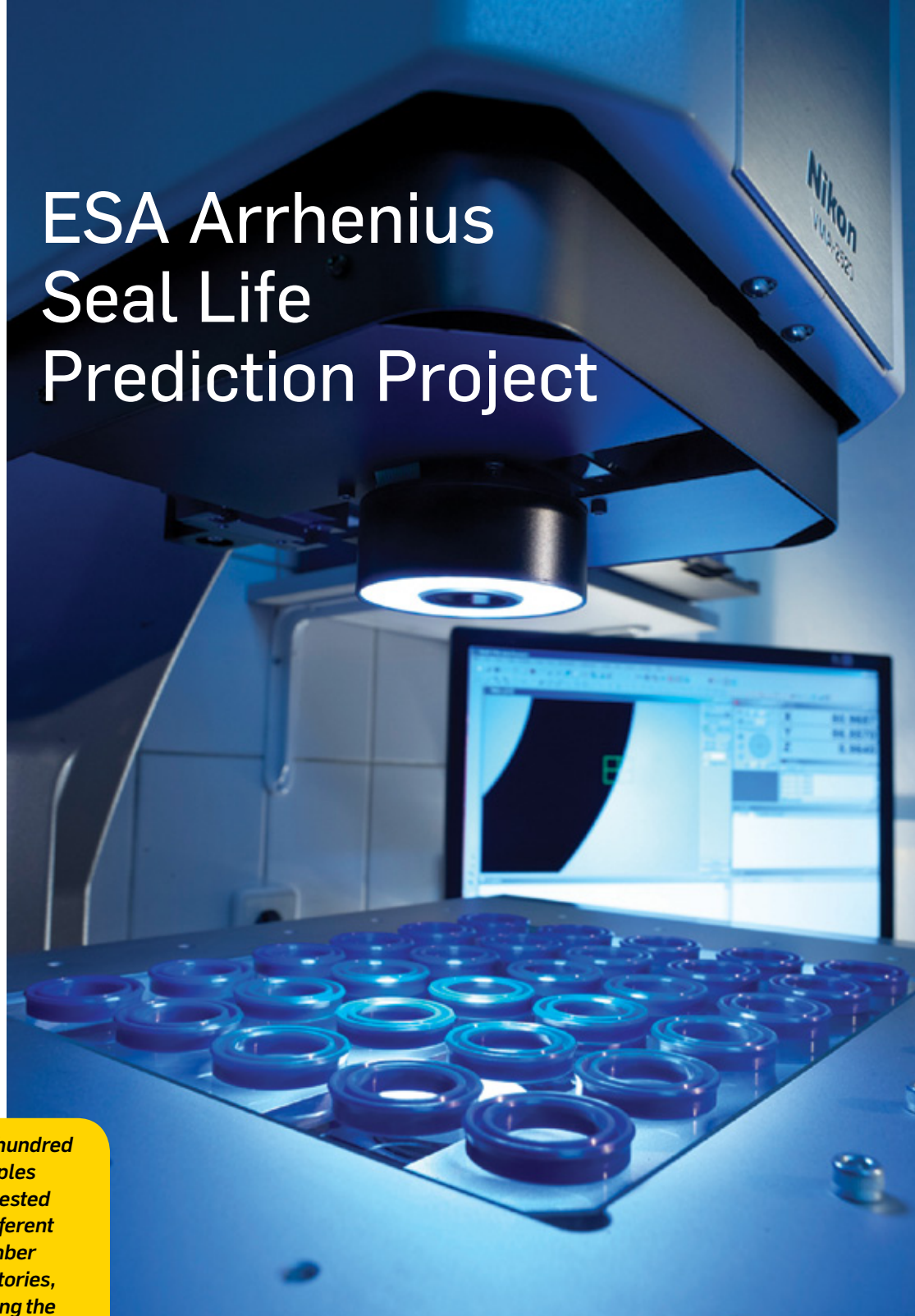
Such is the confidence in these types of techniques that they are being incorporated into equipment specifications, including the extremely influential NORSOK Standard M-710, which specifies the requirements for critical rubber sealing materials in applications such as subsea use. While recognizing the value of this tool, the members of the ESA Elastomeric and Polymeric Seals Division Technical Group were concerned that dependence on it for predicting seal life in critical applications could be problematic. They have therefore embarked on a research project to examine whether Arrhenius' methods, even when applied to theoretically very simple and hopefully single reactions, were valid and whether they showed reasonable reproducibility across different test sites.

The basis of the prediction tools is to carry out aging of the seal material at a range of temperatures up to and above the intended operating temperature in the medium to which it is to be subjected in the application. So the team member companies such as Kastass each subjected two standard commercially available compounds, typical of those used in the oil industry, to immersion testing in both air and a standard test oil at a range of temperatures for periods of time ranging from 2 to 20 weeks. Several material properties for each sample were measured after immersion and their change from the original values plotted to give graphs which could be used to generate the relevant life prediction data.

Several hundred samples were tested in 5 different member laboratories, including the Kastass facility, but all measurements were carried out by a single facility on the same piece of equipment to minimize experimental error.

Several hundred samples were tested in 5 different member laboratories, including the Kastass facility

ESA Arrhenius Seal Life Prediction Project



Analysis of the results is already showing some disturbing results. One of the issues is that while the Arrhenius method is extremely accurate at prediction when a single chemical reaction is involved, the effect of oils, for example, on an elastomeric seal is much more complex and therefore less predictable.

A full technical paper on the project, titled Investigation of Arrhenius' life prediction

techniques and methodology, was presented at the Oilfield Engineering with Polymers 2014 Conference at the Millennium Gloucester Hotel, London, United Kingdom, from 21-23 October 2014. For more information please click (link).

<http://europeansealing.com/en/about/esa-organisation/divisions/elastomeric-polymeric-seals-division/arrhenius-project>

TR012013 Hydraulic Rod Seal Test Rig

The purpose of the test is to provide comparative data on individual reciprocating rod seal designs and to provide a basis for the preliminary selection of the seals based on their relative performance. To achieve this, it is necessary to carry out the tests under strictly defined operating conditions. ISO 7986 Standard therefore defines standard values of speed, pressure, temperature and surface finish. To make the test results as useful as possible, a range of operating conditions has been provided, so that the most appropriate conditions can be selected as a basis for comparison for initial seal selection.

The pressures are standard working pressures, selected from ISO2944:1974, 6.3MPa, 16 MPa and 31.5MPa. The speeds have been selected to include slow speed (where stick-slip and high wear may be problems), medium speed for general purpose hydraulics and a representative high speed.

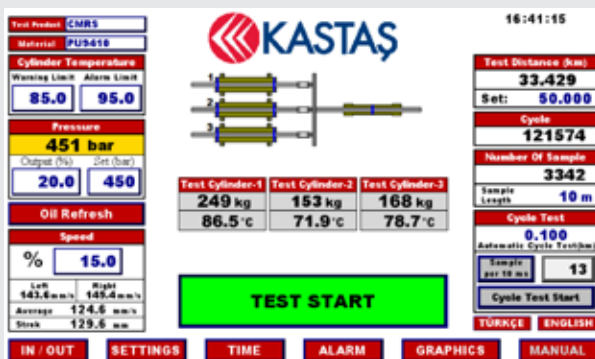
Test Methodology

At the beginning of the test, test seals are chosen randomly to eliminate the seal variations. Test groove and extrusion gaps are determined according to seal dimensions and properties. Test seals are installed into grooves and an operator sets the test parameters. Test parameters are determined according to customer request or ISO 7986.



During the test, data such as leakage, friction forces and temperature are stored in the computer. At the end of the test, test seals are checked dimensionally and visually. Test

reports include loss of preload, abrasion loss, leakage values, friction forces and distance graphics and temperature and distance graphics.



TR012013 Hydraulic Seal Test Rig

- ▶ **Technical Data**
 - Number of Test Seals: 6
 - Velocity: 0.01 – 0.5 m/s
 - Stroke: 20 – 500 mm
 - Pressure: 10 - 450 bar
 - Temperature: 10 °C – 150 °C
- ▶ **Fully automated via PLC (with Touch Screen controls)**
- ▶ **Variable gap width (according to ISO 7986)**
- ▶ **Adjustable sealing grooves and sizes**
- ▶ **Static-Pulse testing for extrusion**
- ▶ **Testing Criteria:**
 - Leakage rate
 - Friction forces
 - Wear
 - Extrusion
 - Stick-slip effect

SmartSeal® , The Solution Partner for Projects

Erhan Kuşaklı, Project Executive at Tümay Makina, states, "Based on quality and cost-benefit comparisons for the projects we put into practice as well as for similar or different applications, we believe that Kastas products are more advantageous and economical due to their quality and after-sale technical support compared to rivals."



Kastas SmartSeal® is the preferred sealing element for use in the Hydrotest Machine Project that was launched by Tümay Makina for Arcelor Mittal Czech Republic Factory. JR12, JW04, K86 K35, K17 and K755 are manufactured from JPU9407 Premium Polyurethane and PT6003 Bronze PTFE materials, which are included in the SmartSeal® material range and last year were used specifically for the project. 950 mm diameter products are preferred for the machine. Successful completion of installation and commissioning phases of the machine were announced.

Tümay Makina is located in the city of Hatay, Turkey and has been operating on machine manufacturing and maintenance services for 38 years. The Tümay Makina and Kastan collaboration started with the solution partner and product supply in special projects in 2013 and continues with the recent



Hydrostatic Testing Machine Project.

"Hydrostatic Testing Machine is used to control the resistance to pressure occurring during the flow in straight and spiral welded natural gas, oil and water pipes. The process is performed by filling water into a pipe between a moving body and a fixed body and then pressurizing the water up to 250 bar. All movements of the moving head are carried out hydraulically. On the head, there are hydraulic cylinders to withstand up to 3000 tons of thrust that may occur in the pipe," said Mr. Kuşaklı regarding the project.

In proportion to peak load that will occur during the use of machine, high-strength and heavy equipment are used in the machine. Therefore, frequent maintenance and parts replacement can be experienced by manufacturers and other users, with considerable time and financial losses. When all movement and stabilization processes of the machine are performed hydraulically, Mr. Kuşaklı pointed out that the selection of high quality and reliable sealing elements in accordance with the area of usage is the first priority. He added, "Based on quality and cost-benefit comparisons we make for the projects we put

into practice as well as for similar or different applications, we believe that Kastan products are more advantageous and economical due to the quality and after-sale technical support compared to our rivals."

"The extent of our product range and having products mainly geared to hydraulic movement lead us to use hydraulic seals in different dimensions. We are able to produce independently of catalog values. SmartSeal® especially helps us gain time and flexibility at the design phase. Flexibility of production, wide product range and efficient technical support throughout the project are advantages for us to make our business successful," he said and stated Kastan SmartSeal® products are preferred in other applications in the production line. He also noted that the fast delivery advantage of SmartSeal® products provides great convenience for the producer companies and an opportunity for quick solutions to the problems experienced by users.

"Kastan's technical support offered by the stage of project design, rapid supply system and knowing there is always an attempt to make products at a higher level are the facts that prove Kastan is a reliable business partner," Mr. Kuşaklı said, and he added, "It is important for us to continue our partnership with Kastan in the future."



New Generation K501 Heavy Duty Piston Seal

Kastas Sealing Technologies has optimized the K501 Heavy Duty Piston Seal design for advanced durability, lower leakage, lower friction and longer service life.

In 2016, Kastas modified the K501 design as a result of intensive R&D engineering efforts and extensive tests. The new design performance was verified in bench and field tests, allowing us to assert that we have achieved reduced leakage and enhanced service life properties.

PA based K501 is a piston seal design that has been extensively used in heavy-duty applications, such as earth-moving machinery and material handling equipment. Easy installation and interchangeability in DIN7425 Standard housings are further advantages that make K501 the first choice for various applications.

Although the operating pressures are within normal range in most applications, pressure peaks are usually critical. Thus, we ensured that extrusion resistance of the material can withstand high pressures (up to 800 bar).

K501 Piston Seal proved itself in rough surfaces with special face material and optimum contact surface. Based on the results yielded, we can confirm that K501 can perform safely and can be utilized with relatively large tolerances and cold-drawn tubes, while even allowing running through ports.

The new K501 design has lower static and dynamic leakage, as well as lower friction, relative to both the previous design and other piston seals available on the market. Its main advantages are:



Lower leakage

Lower friction

Longer service life



Kastas Europe GmbH is now ISO-9001 certified

Kastas Sealing Technologies Europe is now ISO-9001 certified by DQS. European Headquarters and Logistic Center of Kastas Sealing Technologies, Kastas Europe, was established in Hamburg in 2009. In response to the growing customer base, and the need to expand the range of services and product lines, the company moved to its new facility in 2014, while adding customer service and logistic departments to the organization.



Kastas Europe GmbH currently provides full range of products and services to customers located across Europe and North America. Aiming to ensure advanced availability, Kastas Europe is holding a large stock of standard and non-standard sealing elements in its modern logistic facilities.

In order to assure quality and synchronize processes with the headquarters, the company applied for ISO-9001:2008 certification in January 2016. After a period of intensive documentation and organizational training



required for meeting these standards, Kastas Europe GmbH successfully passed the certification audit by DQS in May 2016.

Motivated by this achievement, Kastas Europe GmbH is now working toward certification upgrade to ISO-9001:2015, which is our target for the next two years.



The concept of competition for the company has begun to affect different concepts, including the expectations of employees being changed day by day. Human resources for companies who want to keep up with this change, beyond being a department, is positioned as "a strategic partner". Human resources builds, develops and implements the system to cover all demands and expectations of an employee outside of his/her expertise from the first day of work. At the same time, HR adapts all managers and employees to the process. Therefore, human resources is taking on many strategic duties to deserve "strategic partner" positioning.

Integrating all processes of human resources is the most important way to improve operability. Otherwise, a slowdown of the system, decreasing belief day by day in the system and collapse at the end is inevitable.

In a company, instead of implementing a copied system special to another company, applying the system with revisions unique to its own corporate culture increases success of the system. That's why compatibility with the existing company culture, reflecting especially strong features systems, must be established. It is not possible to build and carry out a successful

system in a company with a quantitative target-oriented culture that emphasizes only the business results--in short, "what we do". How human-oriented can the systems focused on working with only quantitative targets be? How can employees be motivated? How can company commitment be achieved? Such systems, which form the basis of fierce competition within the company, have now completed its life cycle.

"How we do" is as important as "what we do". At this point, to reflect the current company culture, to tell the employees which behaviors are expected and appreciated in the company and to speak a common language, a well-structured "competence model" needs to be created. It is possible to use a "competence model" effectively in the processes of recruitment, performance management systems and training planning to integrate all these systems.

A performance management system, which is a systematic management approach to develop employees by identifying their areas needing improvement or revealing their existing potential, can be configured according to each company's culture and way of doing business. The aim of a performance management system is adoption and minimum fulfillment of company goals and objectives by employees and to ensure the continuation of a dynamic work environment, strengthening the sense of justice between the employees.

Integrated Human Resources

Özlenir Oflas Human Resources Manager



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